

CLAIMS

1. A method for evaluating hair damage comprising specifically labeling the carbonyl group of an oxidized protein in hair with fluorescence, and detecting the
5 fluorescence.

2. The method according to claim 1, wherein the damage is caused by any of perm treatment, bleach treatment, treatment with an oxidative hairdye, combing, heat treatment, exposure to ultraviolet rays, and
10 exposure to hypochlorous acid in swimming pools, or a combination thereof.

3. The method according to claim 1 or 2, wherein the specific fluorescence labeling of the carbonyl group of the oxidized protein is performed by acting and
15 binding a hydrazino-group-containing fluorescent substance to the oxidized protein.

4. The method according to any one of claims 1 to 3, wherein the hydrazino-group-containing fluorescent substance is selected from the group consisting of
20 fluorescein-5-thiosemicarbazide and dansylhydrazine.

5. The method according to any one of claims 1 to 4, wherein the evaluation is conducted under a fluorescence microscope.

6. The method according to claim 3, wherein the
25 hydrazino-group-containing fluorescent substance is dansylhydrazine, and detection of the fluorescence is conducted by eye.

7. A kit used for a method for evaluating hair damage, comprising a fluorescent substance for
30 specifically labeling the carbonyl group of an oxidized protein with fluorescence.

8. The kit according to claim 7, wherein the fluorescent substance is a hydrazino-group-containing fluorescent substance.

35 9. The kit according to claim 7 or 8, wherein the hydrazino-group-containing fluorescent substance is selected from the group consisting of fluorescein-5-

thiosemicarbazide and dansylhydrazine.